

Testimony
House Bill 1166 – Department of Water Resources
House Agriculture Committee
Representative Paul Thomas, Chair
January 13, 2023

Chairman Thomas, and members of the House Agriculture Committee – I am Darin Langerud, Director of the Atmospheric Resource Division of the Department of Water Resources. I am here today to provide neutral testimony on HB 1166.

HB 1166 would enact a new subsection of code under § 61-04.1-39, requiring counties or persons who choose to contract with the atmospheric resource board for weather modification operations to obtain the approval from the board of county commissioners in counties adjacent to those participating in the program. This requirement would pose a serious impediment to those counties choosing to participate in the program, giving non-participating counties veto power over participating counties' legally established programs.

North Dakota Century Code establishes a specific process for counties to create a weather modification authority which is required for the county to participate in weather modification operations. This process involves public approval through a public vote, petition, or temporary authority after a public hearing. Initial establishment of a county weather modification authority provides a ten-year authorization, after which the board of county commissioners must review that authority for renewal every five years.

In addition to public assent for the establishment of a program, each operations area must complete a permitting process prior to conducting operations every year. This involves two weeks of public notice in the official newspaper of record in participating counties and all adjacent counties, followed by a 20-day comment period. Each comment is reviewed by the atmospheric resource board's director, and a final recommendation is made to the board for approval, modification, or denial.

Weather modification was originally established by the legislature 1965 to assist agricultural producers by addressing shortfalls in precipitation and the damage caused by hail. North Dakota has been a pioneer in the field, providing advancements to the science and technology of cloud seeding through its operations, research, and development. The board has an MOU with the University of North Dakota for pilot instruction and training, which has placed more than 400 intern pilots on the North Dakota Cloud Modification Project since 1976. Cloud seeding programs are currently established in ten western states, with new programs or expansions occurring in California, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.

Several independent evaluations have shown cloud seeding operations in North Dakota increase precipitation in the general range of 5 to 10 percent and reduce crop damage from hail by up to 45 percent. Further, studies show that cloud seeding in an upwind operations area doesn't reduce downwind precipitation, but enhances it, as seeding effects don't arbitrarily end at county boundaries. This effect is shown to diminish with time and distance downwind. Finally, recent studies by NDSU (2019) and Michigan State University (2021) show that the economic benefits of cloud seeding on agricultural production far outweigh the cost of operations and provide significant benefits to producers.

Thank you for the opportunity to testify before you today. I would be happy to address any questions you may have.